

therefore one must make a very considerable reduction in order to determine whether it is worth while to go to any great expense in efforts to prevent local hailstorms. The following table is derived from that above referred to, recalling that the column headed "annual" on that page should read "total for five years."

States.	Areas.	Annual frequency.		States.	Areas.	Annual frequency.	
		By States.	By unit area.			By States.	By unit area.
Alabama.....	5.1	19.6	3.96	Montana.....	14.4	25.6	1.78
Arizona.....	11.4	22.6	1.99	Nebraska.....	7.6	43.8	5.78
Arkansas.....	5.2	26.4	5.08	Nevada.....	11.2	29.2	2.62
California.....	15.8	40.2	2.54	New Hampshire.....	0.9	9.6	10.68
Colorado.....	10.4	61.4	5.92	New Jersey.....	0.8	17.8	.....
Connecticut.....	0.5	10.8	.....	New Mexico.....	12.1	24.0	1.98
Delaware.....	0.2	3.8	.....	New York.....	4.7	29.6	6.30
Dist. of Columbia.....	0.01	1.4	.....	North Carolina.....	5.1	26.6	5.22
Florida.....	5.9	12.0	2.10	North Dakota.....	7.5	28.6	3.82
Georgia.....	5.8	19.6	3.39	Ohio.....	4.0	43.0	10.74
Idaho.....	8.1	34.4	4.26	Oklahoma.....	3.9	14.6	3.74
Illinois.....	5.5	46.4	8.44	Oregon.....	9.5	40.8	4.30
Indiana.....	3.4	33.4	9.84	Pennsylvania.....	4.6	28.4	6.18
Indian Territory.....	3.1	7.8	2.58	Rhode Island.....	0.1	2.0	.....
Iowa.....	5.5	46.4	8.44	South Carolina.....	3.4	19.4	5.72
Kansas.....	8.1	50.8	6.28	South Dakota.....	7.6	30.6	4.06
Kentucky.....	3.8	27.2	7.16	Tennessee.....	4.6	26.2	5.70
Louisiana.....	4.1	20.6	5.04	Texas.....	27.4	39.6	1.44
Maine.....	3.5	6.4	1.84	Utah.....	8.4	12.8	3.06
Maryland.....	1.1	19.4	.....	Vermont.....	1.0	6.4	6.40
Massachusetts.....	0.8	16.2	.....	Virginia.....	6.1	20.4	3.36
Michigan.....	5.6	31.6	5.64	Washington.....	7.0	34.8	4.96
Minnesota.....	8.4	37.6	4.48	West Virginia.....	2.3	15.2	7.94
Mississippi.....	4.7	21.6	4.62	Wisconsin.....	5.3	33.2	6.28
Missouri.....	6.5	57.0	8.78	Wyoming.....	9.8	11.2	1.16

In the above table we have left the last column blank in the case of seven small States that ought to be grouped together as one Middle Atlantic Coast region, and these are thus combined in the following table:

States.	Areas.	Frequency by unit area.	Annual by States.
District of Columbia.....	0.01	1.4	140
Maryland.....	1.1	19.4	18
Delaware.....	0.2	3.8	19
New Jersey.....	0.8	17.8	22
Connecticut.....	0.5	10.8	22
Rhode Island.....	0.1	2.0	20
Massachusetts.....	0.8	16.2	20
Total.....	3.5	71.4	20.4

The above figures are but a crude approximation to the desired statistics as to frequency and area of distinctive hailstorms, and we hope that those who have reliable records of hail will favor us with details of the local records during the past thirty years.

THE CROP AS DEPENDING ON METEOROLOGICAL CONDITIONS.

It is well known that the tree or vine accumulates from year to year a greater or less surplus of material and cellular structure for use in flowering and fruiting. The crop does not depend simply on the weather of the current year, but also on the conditions during the one or two or even more years previous. The line of thought suggested in the following note by Mr. Howard Shriver, of Cumberland, Md., seems

to be quite worthy of general consideration; it is copied from the August report of the West Virginia section:

During the spring of 1896, each successive week's account put the fruit crop worse than the preceding. No complaints were made; the bloom was abundant, the season propitious to an extraordinary degree, both as regards rain, sunshine, and absence of frost. Hence much was expected, yet the bloom mostly fell; the scanty crop of fruit still left, also lost, in large proportion, by falling off. People are slowly coming to realize that the fair promise of a luxuriant crop is not fulfilled.

There being no cause, during the winter of 1895-96 and spring of 1896, for this failure, we naturally revert to the consideration of the status of the tree during the time of bud formation. What was it? All remember the drought and excessive heat of the summer and fall of 1895, when vegetable nature succumbed. The more tender plants sunk under a heat protracted during the driest season we have ever had. Even stronger plants and trees drooped during the day, and recuperated little at night; during the critical period when they should have been at their best, under the tropical conditions of unusual warmth and moisture, instead, we had excessive warmth and no moisture. It was remarked the following summer that the ground was dry at the depth of a couple of feet, not having recovered its normal moisture after considerable rain. It is remembered how all our springs gave out, how the water in wells diminished, and how the creek and river dried up. Under these Sahara-like conditions the tree was expected to develop a bud, the embryo of the fruit of the following spring.

A close observer must have been impressed, during the heated term, with the difficulty, if not impossibility, of the trees forming a perfect bud under such conditions, and that either the bud of the following spring would not be formed sufficiently well to open, or that having opened it would fall or else be succeeded by a weakly fruit that would fall for want of inherent power to secure full development. The decimation of the fruit crop of that spring must, probably, be attributed to the cause above assigned.

According to my observation, the crop of indigenous flowers in this vicinity was very light. The many lovers of epigaeo (trailing arbutus) are well aware how short the crop was. It has been suggested that fire and ruthless gatherers who tear up stem and root as well as flower conspire to exterminate this favorite plant; this may be. But the bloom itself that year was not only scant, but not so perfectly formed as usual. One of our mountain rambles who is also a lover of flowers, agreed with me in attributing the defect in abundance as well as beauty of the flower that year to the heat and drought of the previous year.

METEOROLOGICAL REPORT FROM NOME, ALASKA, SEPTEMBER, 1900.

We cull the following extracts from the report of the voluntary observer of the Weather Bureau at Nome, Alaska, for September, 1900. This report left Nome about the first of October and was received in Washington, D. C., October 31, before the September REVIEW had gone to press. The monthly mean temperature for September was 39°; monthly maximum, 54° on the 23d; monthly minimum, 22°, on the 22d; the mean maximum was 46.7°; the mean minimum, 31.2°. The temperature fell to the freezing point or below on eighteen days. The total rainfall was 7.00 inches, and rain fell on seventeen days. Rain fell almost continuously from the 2d to the 16th. The winds during this spell of rainy weather were from a southerly quarter except on the 8th and 9th, when they shifted to the north and west. From the 17th to the 22d northerly winds and clear weather prevailed; on the 23d the winds were east with cloudy weather, and rain fell on the two succeeding days, with north and northeast winds. The remainder of the month was clear, except the 30th when a southeast gale prevailed with considerable rain. Gales were also reported on the 7th, 12th, 13th, and 15th. The observer remarks: "Frosts have been quite severe on several occasions and there were snow flurries on a few days,